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A new species of *Lysathia* BECHYNÉ, 1959 from the Pantanal, Brazil (Insecta, Coleoptera, Chrysomelidae, Alticinae)

by

L.N. Medvedev*

Dr. Lev N. Medvedev, Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, 33 Leninsky prospekt, 117071 Moscow V-71, Russia.

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Abstract

A new chrysomelid beetle species, *Lysathia siolii* n.sp., apparently feeding on *Ludwigia natans* (Oenotheraceae), is described from the Pantanal, Brazil. The new taxon joins the *flavipes*-group but differs from congeners by the much more strong, deep and dense punctures on the elytra as well as the high ridge on the underside of the aedeagus.

Keywords: **Chrysomelidae, Alticinae, new species, Pantanal, Brazil.**

Resumo

Uma nova espécie de besouro da família Chrysomelidae, *Lysathia siolii* n.sp., que aparentemente se alimenta de *Ludwigia natans* (Oenotheraceae), é descrita do Pantanal, Brasil. O taxon novo se junta ao grupo *flavipes* mas se destaca dos outros membros do gênero por ter depressões puntiformes ("punctures") muito mais fortes, profundas e densas nos élitros bem como por ter uma cresta alta no lado inferior do edeago.

Introduction

Thanks to Prof. Dr. Joachim ADIS and Dr. Karl Matthias WANTZEN (both Max-Planck-Institute for Limnology (MPIL), Plön, Germany), a new species of the leaf-beetle genus *Lysathia* BECHYNÉ, 1959 has been revealed in the Pantanal, Brazil. Though no larvae have been collected yet, the fact the adults have been taken from *Ludwigia natans* (Oenotheraceae) is likely to be evidence that we face a host plant

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*Dedicated to Prof. Dr. Harald Sioli on the occasion of his 90th anniversary.

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species. According to ADIS & WANTZEN (pers. comm.), the specimens were collected in late afternoon hours during the end of a maximum flood height (April 1999) on a flooded field *(campo)* near the building of Fazenda Ipiranga. The next terra-firme site was about 500 m distant. Hundreds of adult beetles crowded on consumed and already decaying *Ludwigia* leaves. The insects clung together so tightly as to completely cover the rosettas. Mating was observed in numerous cases. Single sweep net catches yielded 10-150 specimens although the animals tried to escape when the net approached. Thus, a density of 50 beetles per rosetta (12 cm diameter) could be estimated. Isotope analysis of stable C and N isotopes confirmed that the beetles are likely to feed on *Ludwigia* leaves (WANTZEN, unpubl.). However, individual later surveys during the same flood stadium/height and on the same plant one year later revealed neither larvae nor adults. This is a pattern commonly observed among invertebrates in the seasonally flooded wetland of the Pantanal, i.e. semiaquatic arthropods temporarily appear for short periods in larger quantities to virtually disappear for a while thereafter. A similar case is represented by the chrysomelid beetle *Neolochmaea boliviensis* which completes its life-cycle on *Ludwigia natans* in Central Amazonian floodplains (MEDVEDEV & ADIS 1993).

The holotype and several paratypes are to be deposited in the Museu de Zoologia, Universidade de São Paulo, Brazil (MZUSP), some paratypes are in the Entomological collection of the Instituto de Biociências, Universidade Federal de Mato Grosso, Cuiabá, Brazil (IB-UFMT), the Muséum d'histoire naturelle at Geneva, Switzerland (MNHN), the Collection of J. ADIS (CA), the Collection of S. M. CLARK (CC), and the Collection of L. MEDVEDEV (CM), as indicated hereafter.

Taxonomy

Lysathia siolii L. MEDVEDEV, n.sp.

Holotype male (MZUSP): Brazil, Mato Grosso, Pantanal floodplains, Fazenda Ipiranga (16°24'S, 56°37'W), on *Ludwigia natans*, leg. K. M. WANTZEN.

Paratypes: 6 ex. (MZUSP), 3 ex. (IB-UFMT), 3 ex. (MNHN), 5 ex. (CM), 2 ex. (CC), same locality, date and foodplant, together with holotype.

Nontypes: 5 ex. (IB-UFMT), 5 ex. (MNHN), 10 ex. (CA), same locality, date and foodplant, together with type material.

Name: Honours Prof. Dr. Harald SIOLI, former Director of the MPIL and one of the pioneer explorers of Amazonia and of Brazilian limnology as a whole.

Description: Head and upperside bronze, underside dark bronze; antennae piceous with basal segments dark fulvous, legs fulvous with tarsomeres 3 and 4 blackish, central lobe of last abdominal sternite dark fulvous.

Body elongate, slightly broadened posteriorly, especially evidently so in female. Head with a rather sharp interantennal ridge and rounded frontal tubercles, latter covered with microsculpture. Clypeus strongly and densely punctate near eyes and finely transversely strigose. Eyes strongly convex, practically round. Antennae reaching the anterior 1/4 elytra, densely pubescent from antennomere 3 on, proportions of segments as 12-5-9-12-10-10-10-10-10-9-9; intermediate segments about 2.5-3 times as long as wide.

Pronotum 1.35 times as wide as long, sides feebly rounded and slightly emarginate before rectangular posterior angles; anterior angles obtuse, incrassate, each with a group of hairs before seta. Surface with a very feeble transverse basal groove, latter distinct only in middle part, practically disappearing on sides; punctures strong and dense, mostly larger than flat interspaces with more or less distinct microsculpture.

Scutellum triangular with a rounded hind margin, impunctate but densely microsculptured.

Elytra 1.45-1.55 times as long as wide, with a well-developed smooth humeral tubercle, strongly and densely punctate (punctures a little larger as compared with those on prothorax), interspaces flat and shining, mostly narrower than diameter of punctures; basal elevation feeble, lateral fold also feeble but distinct and delimited from inside by a longitudinal impression.

Apex of pygidium roundly truncate in male, roundly triangular in female. Protarsomere 1 slightly enlarged in male. Last abdominal sternite of male without impressions, but with a produced central lobe at hind margin. Aedeagus (Figs. 1-3) slender, almost parallel-sided, on underside with a sharp central ridge, strongly elevated in middle.

Body length 4.5-5.1 mm.

Diagnosis: Based on both certain peripheral and genitalic traits, this new species belongs to the *flavipes*-group and, in sharing a bronze upperside, it seems especially similar to *Lysathia flavipes* (BOHEMAN, 1859), *L. hygrobia* BECHYNÉ, 1963 and *L. bohumilae* (BECHYNÉ, 1957). It differs well, however, in having much more strong, deep and dense punctures on the elytra as well as the high ridge on the underside of the aedeagus (Figs. 1-3). In *L. flavipes*, for example, this ridge is sharp enough, but not elevated in the middle (Fig. 4).

Remarks: The genus *Lysathia* BECHYNÉ, 1959 was first proposed by BECHYNÉ (1959), later confirmed as valid by SCHERER (1962) and is currently known to comprise about 15 species. Most of these were earlier included in *Altica* GEOFFROY, 1762. According to BECHYNÉ (1959), they differ from *Altica* by the particularly incrassate femora, the feeble to sometimes indistinct basal transverse groove on the pronotum, and the male has a very short central lobe on the last abdominal sternite. Many species of *Lysathia* display a metallic body with fulvous legs, while in typical *Altica* the legs are usually metallic. The aedeagus of *Lysathia* is of the same general type as in *Altica*, including the sculpture on its underside, but rather large differences are observed in certain details, for example the strongly developed central ridge in the new species.

Lysathia species are mostly South American, but some are also known from Central America, the West Indies and Pacific islands (possibly introduced). Many species seem to be associated with humid habitats.

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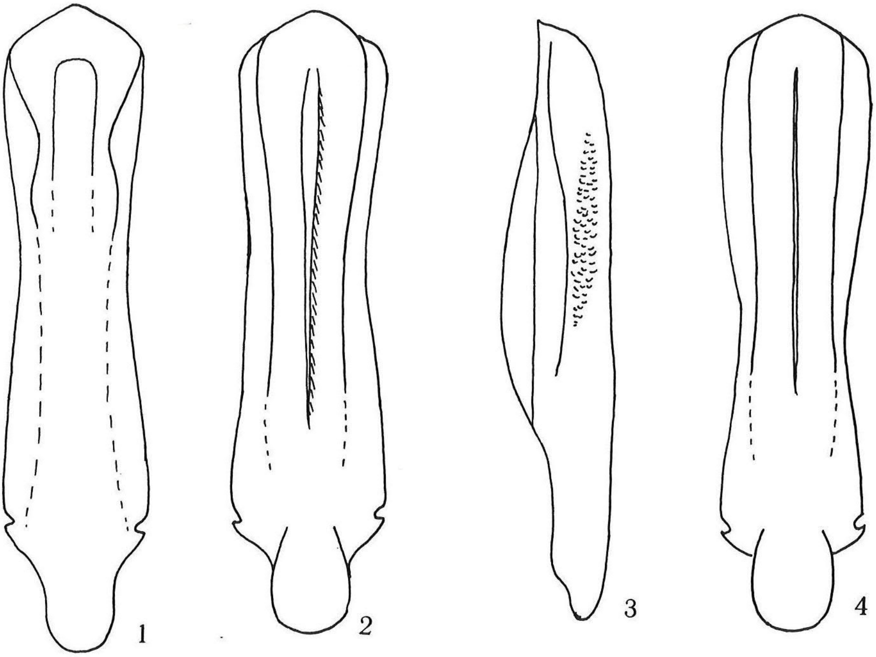

Figs. 1-4:
Aedeagi of *Lysathia siolii* n.sp., male paratype (**1-3**) (dorsal, ventral, and lateral views, resp.), and *L. flavipes* BOHEMAN from Brazil (**4**) (ventral view).